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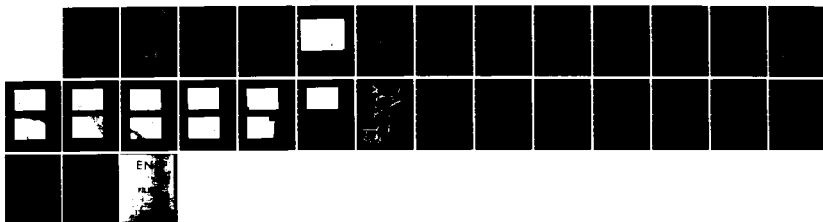
NATIONAL PROGRAM FOR INSPECTION OF NON-FEDERAL DAMS  
LOWER ROSS POND DAM (U) CORPS OF ENGINEERS WALTHAM  
MA NEW ENGLAND DIV AUG 80

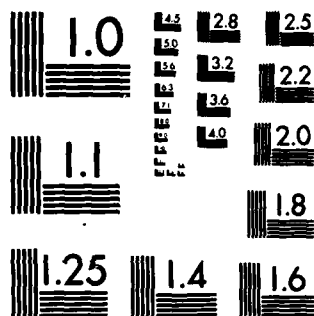
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

THAMES RIVER BASIN  
KILLINGLY, CONNECTICUT

AD-A143 339

LOWER ROSS POND DAM  
CT. 00175

PHASE 1 INSPECTION REPORT  
NATIONAL DAM INSPECTION PROGRAM



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ELECTE  
JUL 25 1984  
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DEPARTMENT OF THE ARMY  
NEW ENGLAND DIVISION, CORPS OF ENGINEERS  
WALTHAM, MASS.

AUGUST, 1980

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UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM	
1. REPORT NUMBER  CT 00175	2. GOVT ACCESSION NO.  AD A143 339	3. RECIPIENT'S CATALOG NUMBER	
4. TITLE (and Subtitle)  Lower Ross Pond Dam  NATIONAL PROGRAM FOR INSPECTION OF NON-FEDERAL DAMS		5. TYPE OF REPORT & PERIOD COVERED  INSPECTION REPORT	
7. AUTHOR(s)  U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DIVISION		6. PERFORMING ORG. REPORT NUMBER	
9. PERFORMING ORGANIZATION NAME AND ADDRESS  CE MA GUIRE Inc. 31 Canal Street Providence R.I. 02903		8. CONTRACT OR GRANT NUMBER(s)  DACW 34-80-C-0013	
11. CONTROLLING OFFICE NAME AND ADDRESS  DEPT. OF THE ARMY, CORPS OF ENGINEERS NEW ENGLAND DIVISION, NEDED 424 TRAPELO ROAD, WALTHAM, MA. 02254		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		12. REPORT DATE  August 1980	
		13. NUMBER OF PAGES  25	
		15. SECURITY CLASS. (of this report)  UNCLASSIFIED	
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report)  APPROVAL FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED			
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)			
18. SUPPLEMENTARY NOTES Cover program reads: Phase I Inspection Report, National Dam Inspection Program; however, the official title of the program is: National Program for Inspection of Non-Federal Dams; use cover date for date of report.			
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) DAMS, INSPECTION, DAM SAFETY, Thames River Basin Killingly, Conn. Lower Ross Pond Dam			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)  N/A			

# MAGUIRE

Architects • Engineers • Planners

CE MAGUIRE, INC. 31 Canal Street, Providence, Rhode Island 02903

Tel. 401/272-6000

Telex: 92-7533 Cable: CEMI

August 13, 1980

Department of the Army  
New England Division  
Corps of Engineers  
424 Trapelo Road  
Waltham, MA 02154

Re: Inspection and Evaluation of Non-Federal Dams FY-80  
Connecticut and Rhode Island  
Contract No. DACW33-80-C-0013

Attn: Mr. P. Gould

Gentlemen:

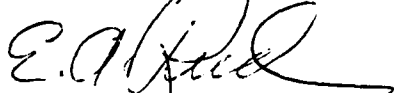
In accordance with Paragraph 4.a.2.d. of Appendix "A" of the above referenced contract, we hereby, respectfully, submit the following letter report which outlines our reclassification of Lower Ross Pond Dam (CT 00175) to a LOW HAZARD classification.

We trust the information provided is adequate for your staff to agree with our reclassification to LOW HAZARD for this dam. If you have any questions regarding the enclosed data, please contact the undersigned.

It is our understanding that an amendment will be issued by you to our contract, dropping the need for a full study report for both Lower Ross Pond Dam (CT 001752) and Moswamsicut Pond Dam (RI 02002).

Very truly yours,


CE MAGUIRE, INC.



E. A. Reed, P.E.

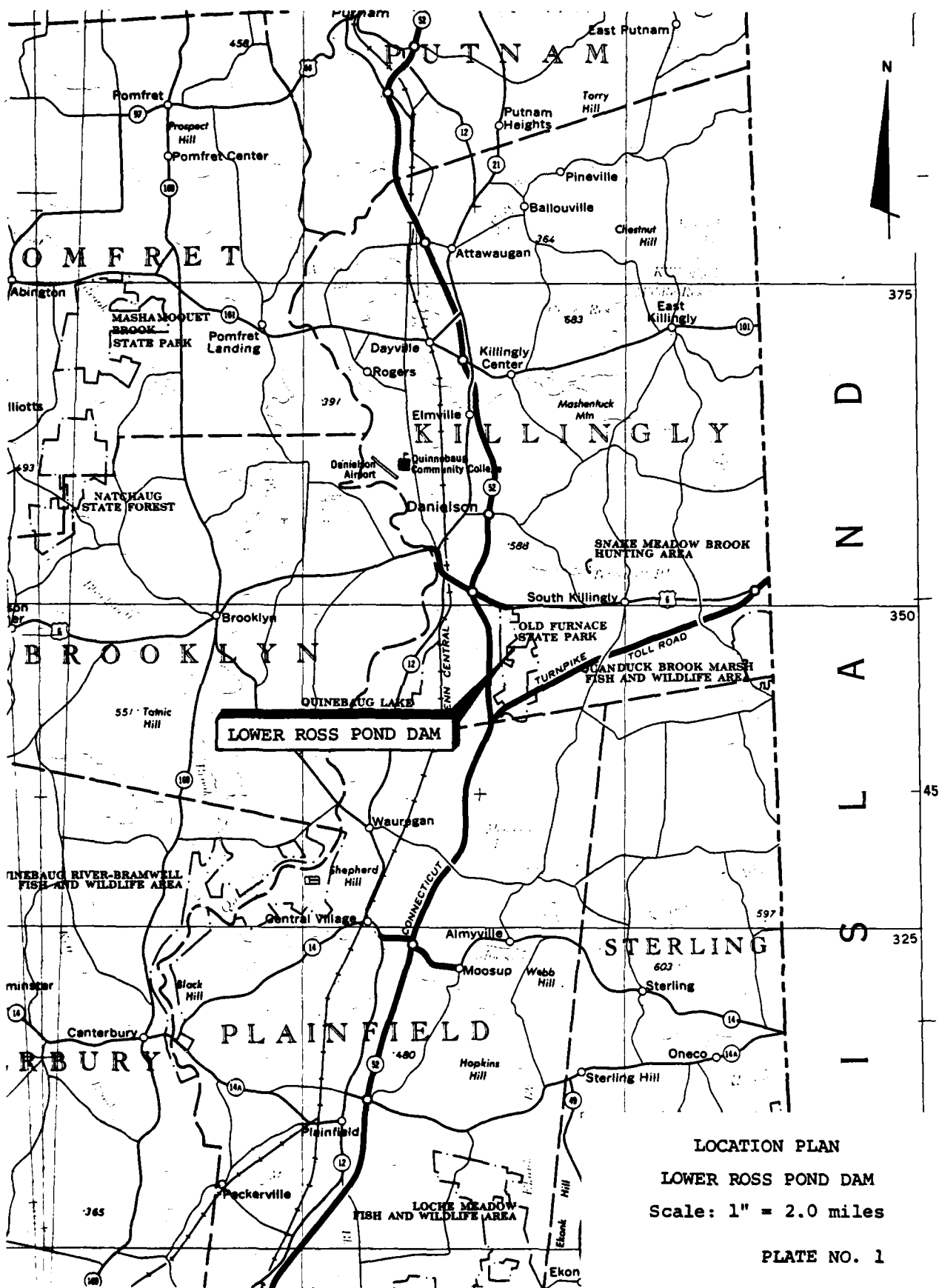
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Unannounced	<input type="checkbox"/>
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Availability Codes	
Dist	Avail and/or Special
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OVERVIEW PHOTO - Lower Ross Pond Dam



1. Description of the Project

- a. Location: Lower Ross Pond Dam is located in Ross Pond State Park in the Town of Killingly, Windham County, Connecticut, approximately four miles west of the Rhode Island-Connecticut State Boundary along U.S. Route 6. Coordinates of the dam are approximately 41°46.7'N Latitude and 71°51.9'W Longitude. The dam impounds water from a .74-square mile watershed which includes Upper Ross Pond. The terrain is undeveloped, wooded, and moderately sloped.
- b. Description of Dam and Appurtenances: The dam at Lower Ross Pond is approximately 600 feet long, 6 feet high, and is an earth embankment with a downstream stone masonry-concrete capped face. The earth fill section varies in width from 3 to 10 feet along the upstream face and has varying slopes into the pool. The downstream face of the dam is vertical. There are two uncontrolled overflow spillways about 128 feet apart through the dam. The easterly spillway is a masonry and concrete capped weir 12.5 feet long. Short masonry training walls lead into the reservoir pool and channel overflows to the weir section. The downstream channel is Half Hill Brook which meanders through wooded terrain. The westerly spillway weir is 13 feet wide and also has training walls leading into the pond. The easterly spillway crest is approximately 2 feet below the westerly spillway crest. There is no outlet works for the dam.
- c. Size Classification: Ross Pond Dam has an impoundment capacity at the top of the dam (Elev. 335.5 feet NGVD) equal to 40 Ac-Ft. and a height of dam of 7.0 feet. In accordance with the guideline criteria established by the Corps of Engineers, this dam is classified as SMALL in size. The height and impoundment capacity both were the governing criteria in the determination of the SMALL classification.
- d. Hazard Classification: The dam is classified as a LOW HAZARD structure because its failure will not cause: any loss of lives, damage to dwellings, or disruption to public utilities located in the path of the failure flow. The dam failure discharge of 1,386 CFS will have a maximum water depth of approximately 5.0 feet for a distance of 4,000 feet in the impacted area. This small depth of flow will not cause adverse flooding conditions downstream. At a distance of 4,000 feet from the dam, the flooding and depth of flow will diminish to normal acceptable flow conditions and the total outflow of 30 Ac-Ft. will be contained in the available storage downstream.
- e. Ownership: Lower Ross Pond is owned by the State of Connecticut and is managed by the Department of Environmental Protection, Region 4.

- f. Operations: The dam is managed by:  
Mr. John Olsen, Director  
Division of Conservation and Preservation  
State of Connecticut  
Region 4

and

Mr. John Folsom  
Unit Manager  
Mashamoquet State Park  
Pomfret, CT  
203/928-6121

- g. Purpose of the Dam: Recreation.

- h. Design and Construction History: The Lower Ross Pond Dam was constructed in the early 1900's. The State of Connecticut purchased both the upper and lower ponds and adjacent lands in June, 1964, and developed Ross Pond State Park. Records of construction are limited; however, it is known that the State in June, 1968, constructed a new gatehouse and drop spillway in the upper pond and regraded the public beach and parking area, also at the Upper Ross Pond. Trees growing adjacent to the lower dam were cut or removed during this contracted work. No record of any other work at the lower dam has been maintained.

- i. Normal Operating Procedures: There are no operating procedures for Lower Ross Pond Dam.

## 2. Hydraulic/Hydrologic Features

- a. Test Flood Analysis: Recommended guidelines for the Safety Inspection of Dams by the Corps of Engineers were used for selection of the "Test Flood". This Dam is classified under those guidelines as a LOW HAZARD and SMALL size structure. Guidelines indicate that a 50-year to 100-year frequency storm event be used as range of test floods for such classifications. The watershed has a total drainage area of 0.74 square miles. This drainage area is unpopulated, largely wooded, and hilly with rolling terrain. The basin average slope is 0.018 feet/foot which can be called moderate to flat. The watershed's overall terrain can be classified as rolling. A "test flood" equal to the 100-year frequency event was calculated to equal 400 CSM or 296 CFS for the drainage area. The routed outflow discharge was also developed using the Corps of Engineers criteria for approximate routing and found to be 250 CFS. The upper range (100 year) test flood was selected because of the recreational value of the Pond. Additional design data developed for this investigation is listed in tabular form at the end of this section. The spillway rating curve is illustrated in Appendix D. Flood routings were performed with assumed initial conditions of full a reservoir (ie; spillway crest elevation.)

The spillway capacity is hydraulically inadequate to pass the "test flood" (100-year) and this flow would overtop the by approximately 0.40 feet assuming the overflow length of the dam was equal to 100 feet. The inflow and routed outflow discharge value for this test flood are 296 CFS and 250 CFS, respectively. The maximum outflow capacity of the spillway without overtopping the dam is 142 CFS which is 57 percent of the routed test flood outflow.

- b. Dam Failure Analysis: An instantaneous full-depth partial width breach of 40 feet was assumed to have occurred in this dam. This will result in an unsteady flow phenomenon with one flood wave travelling up into the reservoir to feed the other wave travelling downstream into the valley.

With the impounded water level at the top of the dam (Elevation 335.5 feet), the calculated dam failure discharge is 1,386 CFS, and it will produce an approximate water surface elevation of 334.5 feet immediately downstream from the dam. This will raise the water surface an estimated 4.0 feet above the depth of water just prior to failure when the discharge is 142 CFS. The dam failure analysis covered the reach extending from the dam to a distance of 2,000 feet downstream. Normal uniform flow, following Manning's formulae will occur at that point.

On the assumption that the route I-52 highway embankment structure which is located 2,000 feet downstream from the dam will contain the failure wave, the depth of flow will change from 5.0 feet to 2.0 feet due to the large downstream storage available. The failure discharge will diminish as the reservoir is emptied and depth decreased. River valley storage and frictional losses will tend to reduce the discharge and flow velocities in this reach. Water surface elevations due to the failure of the dam have not been computed because the anticipated depth of flow of 5.0 feet is very small and large storages are available.

LOWER ROSS POND DAM

Table: Inflow, Outflow and Surge Data

FREQUENCY IN YEARS	24-HOUR TOTAL RAINFALL IN INCHES	24-HOUR* EFFECTIVE RAINFALL IN INCHES	MAXIMUM INFLOW IN C.F.S.	MAXIMUM** OUTFLOW IN C.F.S.	SURCHARGE HEIGHT IN FEET	SURCHARGE STORAGE ELEVATION
100	7.0	4.6	296	250	2.9	335.9

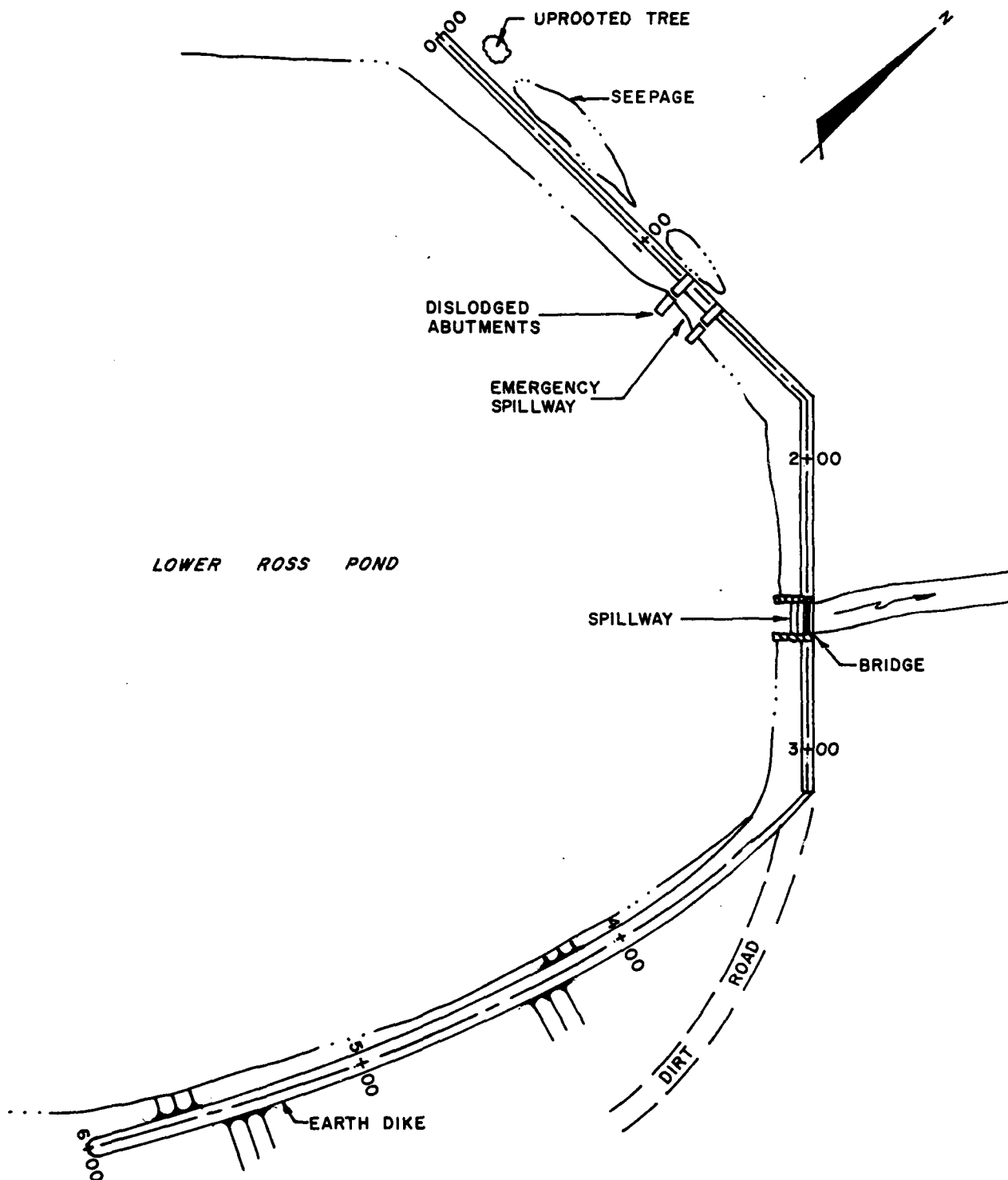
= Test Flood

\*Infiltration assumed as 0.1"/hour

\*\*Lake assumed initially full at spillway crest elevation 333.0  
(top of dam = 335.50)

NOTES:

1.  $Q_{100}$ ; inflow discharges were computed by the approximate methodology of the Soil Conservation Service.
2. Maximum capacity of the spillway without overtopping the dam elevation (333.5) is equal to 142 C.F.S.
3. All discharges indicated are dependent upon the continued integrity of upstream storage reservoirs.
4. Surge storage is allowed to overtop the dam when exceeding the spillway capacity.
5. Test flood = 100-year frequency PMF = 400 CSM = 296 CFS  
(D.A. = 0.74 sq. miles).

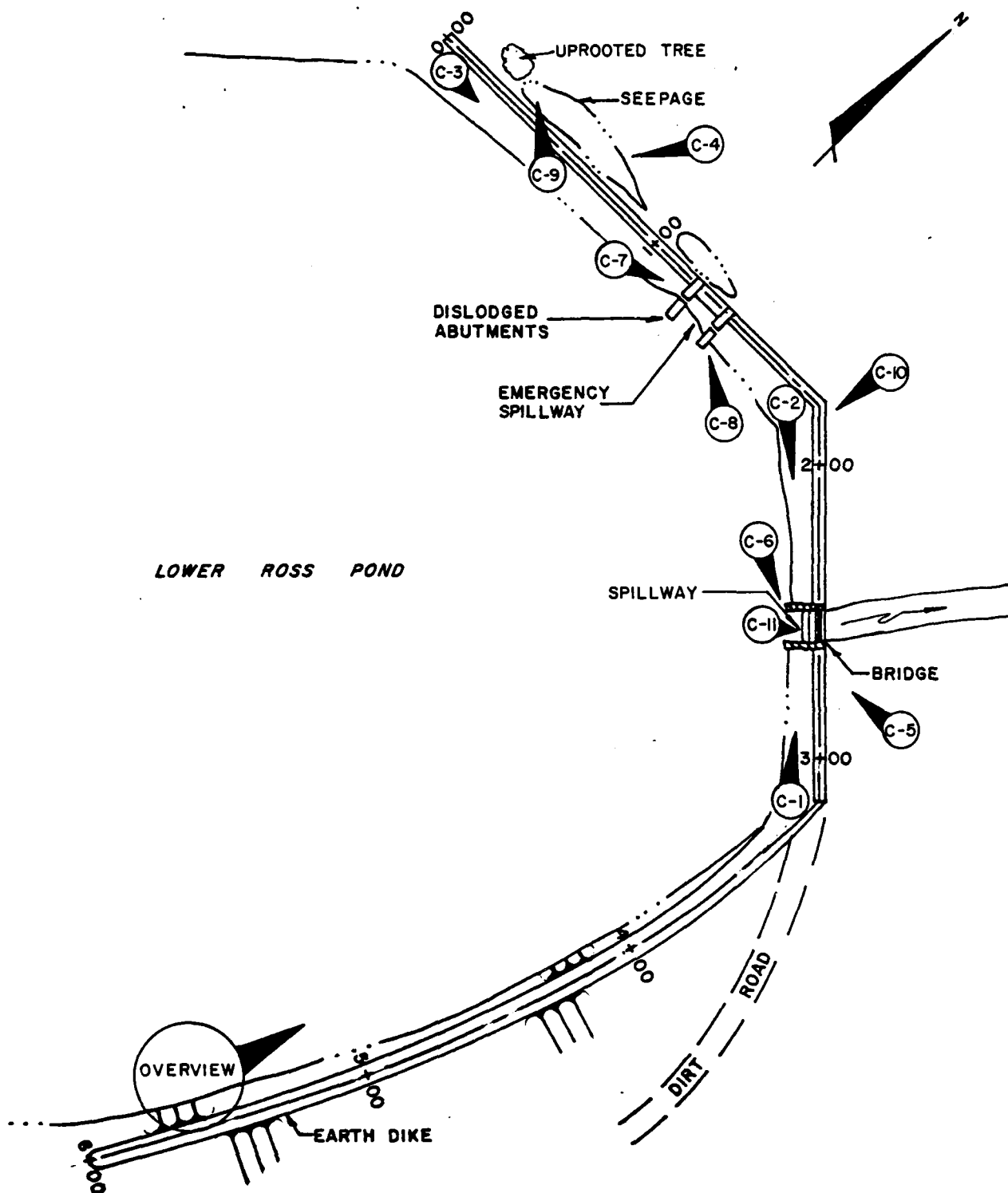


PLAN  
NOT TO SCALE

LOWER ROSS POND DAM  
PLAN OF DAM

PLATE B-1

APPENDIX



**PLAN**  
NOT TO SCALE

**LOWER ROSS POND DAM**  
PHOTO INDEX

PLATE C-1



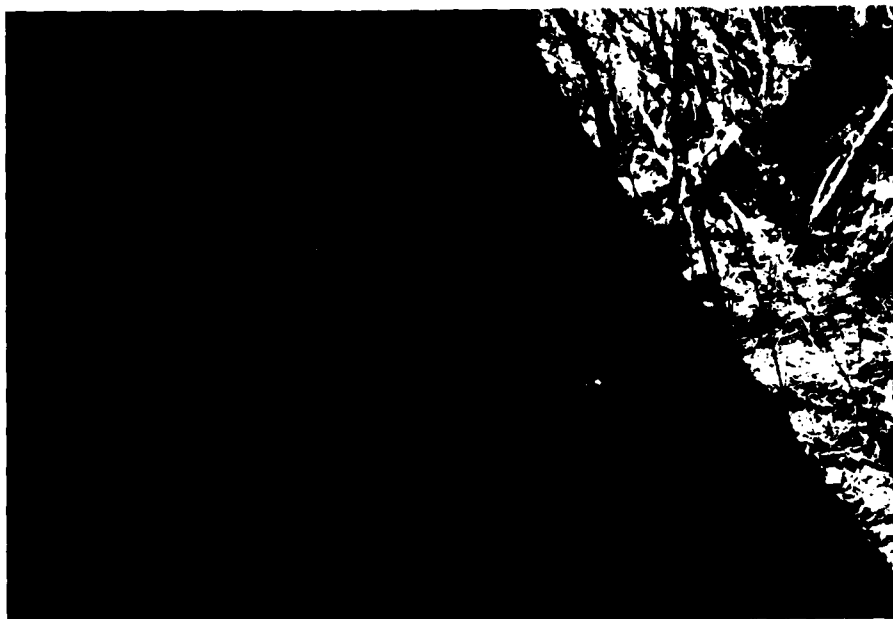
C-1 Crest of Dam looking from right abutment



C-2 Crest of Dam looking towards right abutment



• C-3 Crest of Dam looking from left abutment



• C-4 Seepage at toe of Masonry Dam



C-5 Right spillway



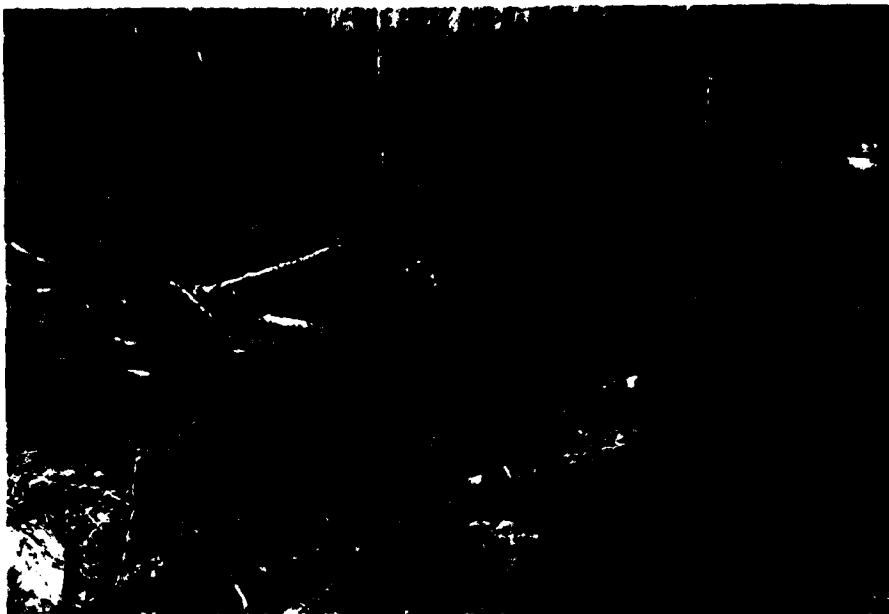
C-6 Approach to right spillway



'C-7 Left spillway



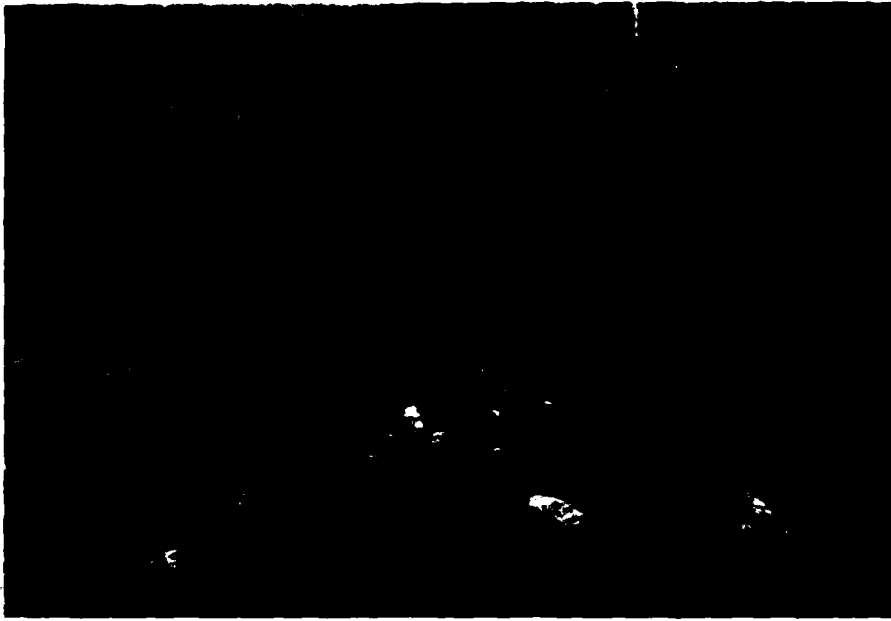
C-8 Left spillway



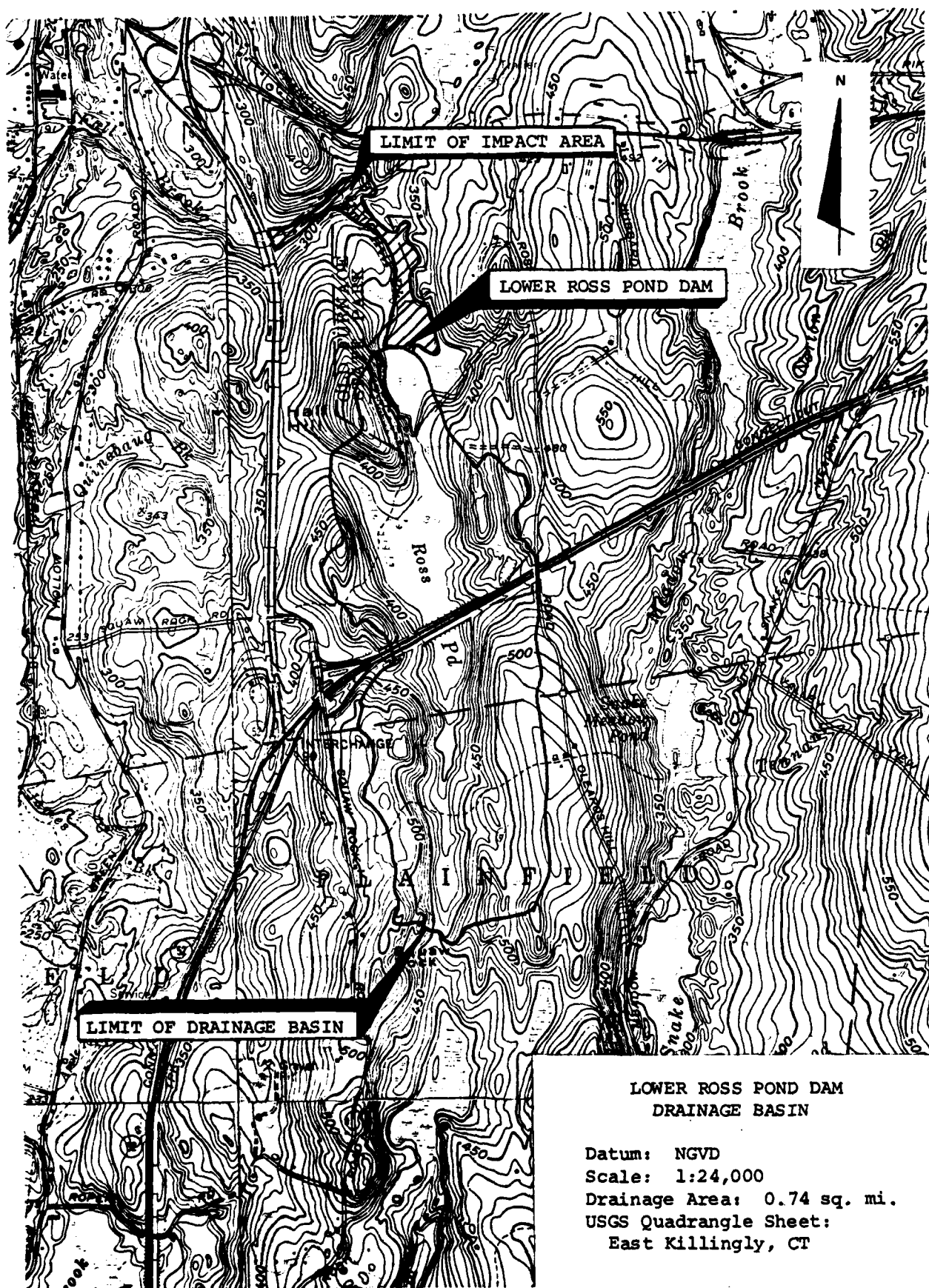
C-9 Uprooted tree at toe of Masonry Dam



C-10. Tree stump at toe of dam



• C-11 Downstream channel



LOWER ROSS POND DAM  
DRAINAGE BASIN

Datum: NGVD  
Scale: 1:24,000  
Drainage Area: 0.74 sq. mi.  
USGS Quadrangle Sheet:  
East Killingly, CT

A. Size Classification LOWER ROSS POND DAM

Height of dam = 7.0 ft.; hence SMALL

Storage capacity at top of dam (elev. 335.50) = 70 AC-FT.; hence SMALL

Adopted size classification SMALL

B. Hazard Potential

Lower Ross Pond Dam is classified as a LOW hazard potential structure because it's failure may not cause any loss of life or appreciable property damage. There is no development in the path of the failure flow. Failure discharge will be contained within the storage areas available between the dam and Route I-52 without causing any appreciable damage.

C. Adopted Classifications

<u>HAZARD</u>	<u>SIZE</u>	<u>TEST FLOOD RANGE</u>
<u>LOW</u>	<u>SMALL</u>	<u>50-100 year frequency</u>
Adopted Test Flood = <u>100-year Frequency Flood</u> PMF =		<u>400</u> CSM
		= <u>296</u> CFS

D. Overtopping Potential

Drainage Area	=	<u>0.74</u>	sq. miles
Spillway crest elevation =		<u>333.0</u>	NGVD
Top of Dam Elevation =		<u>335.5</u>	NGVD
Maximum spillway discharge			
Capacity without overtopping of dam =		<u>142</u>	CFS
"test flood" inflow discharge =		<u>296</u>	CFS
"test flood" outflow discharge =		<u>250</u>	CFS
% of "test flood" overflow carried by spillway without overtopping =		<u>57 %</u>	
"test flood" outflow discharge portion which overflows over the dam =		<u>108</u>	CFS
% of test flood which overflows over the dam =		<u>43 %</u>	

Estimating Maximum Probable Discharges - Inflow and Outflow Values Date of Inspection: May 1, 1980

Name of Dam Lower Ross Pond Dam ; Location of Dam Half Hill Brook ; Town Killingly, Ct.

Watershed Characterization Rural; wooded; moderate slope ; sq. miles of drainage area is swampy or occupied by storage reservoirs

Adopted "test" flood = 100-year Frequency<sub>PMF</sub> = 400 CSM = 296 CFS; Re = Effective Rainfall = 4.6 inches

D.A. = Drainage Area (Gross) = 0.74 Square Miles; Basin Slope = 0.018 hence; moderate - Flat

S.A. = Surface Area of Reservoir = 0.0158 Square Miles; Time of Concentration 30 minutes

Shape and Type of Spillway = Broad crested - overflow weir - vertical fall - uncontrolled

B = Width of Spillway = 12.0 feet; C = Coefficient of Discharge = (3.09-Friction) = 3.0

Maximum Capacity of Spillway Without Overtopping = 142 CFS = 57 % of test flood outflow

Top of Dam Elevation = 335.5 ; Spillway Crest Elevation = 333.0

Overflow portion of Length of Dam = 100 feet ; C = Coefficient of discharge for Dam = 3.0

Name of Dam	Test Flood		Inflow Characteristics		Outflow Characteristics First Approximation				Outflow Characteristics Second Approximation				Outflow Characteristics Third Approximation (Adopted)			
	Qp CSM	Qp CFS	h0 in feet	S0 in in.	Qp1 CFS	h1 in ft.	S1 in in.	S2 in in.	h2 in ft.	Qp2 CFS	S3 in in.	h3 in ft.	Qp3 CFS			
1	2	3	4	5	6	7	8	9	10	11	12	13	14			
Lower Ross Pond Dam	100-yr = 400	296	3.0	1.00	-	SEE PLATE	D-6	-	-	-	0.754	2.9	250			

Q<sub>p</sub> = Discharge; h = Surge height; S = Storage in inches NOTE: Outflow discharge values are computed as per COE guidelines.

## LOWER ROSS POND DAM

### COMPUTATIONS FOR SPILLWAY RATING CURVE AND OUTLET RATING CURVE COMPUTATIONS

Spillway width = 12.0 feet; Spillway crest elevation = 333.0 NGVD

Length of dam = 100 feet; Top of dam elevation = 335.5 NGVD

c = 30 for dam and spillway

#### i) SPILLWAY RATING CURVE COMPUTATIONS

Elevation (ft.) NGVD	Spillway Discharge (CFS)	Remarks
333.0	0	Spillway Crest Elevation
335.5	12.7	
334.0	36.0	
334.5	66.0	
335.0	102.0	Top of Dam Elevation Test Flood Elevation
335.5	142.0	
335.9	177.7	
336.0	293.0	
336.5	536.0	

#### ii) OUTLET RATING CURVE COMPUTATIONS

Elevation (ft.) NGVD	Discharge (CFS)	Remarks
	There is no outlet works for Lower Ross Pond Dam	

Size of outlet = \_\_\_\_\_; Area of outlet = \_\_\_\_\_ sq. ft.

Invert of outlet = \_\_\_\_\_; Center line of outlet = \_\_\_\_\_

NAME OF DAM: Lower Ross Pond Dam

ESTIMATING EFFECT OF SURCHARGE STORAGE ON "TEST FLOOD"

A. This routing of floods through the reservoir was carried out according to the guidelines established by the Corps of Engineers in Phase 1 Inspection for Dam Safety Investigations issued in March, 1978.

B. Formulas used are as follows:

- i. For no overtopping:  $Q = C_1 B_1 H_1^{3/2}$   
 For overtopping:  $Q = C_1 B_1 [h_2 + F.B.]^{3/2} + C_2 B_2 h_2^{3/2}$   
 For open channel flow: N/A  
 For orifice flow: N/A

where  $C_1$  = coefficient of discharge for spillway;  $B_1$  = length of spillway  
 $C_2$  = coefficient of discharge for dam;  $B_2$  = length of dam  
 $h_1$  = head over spillway crest (feet);  $h_2$  = head over dam in feet  
 F.B. = distance between spillway crest and top of dam

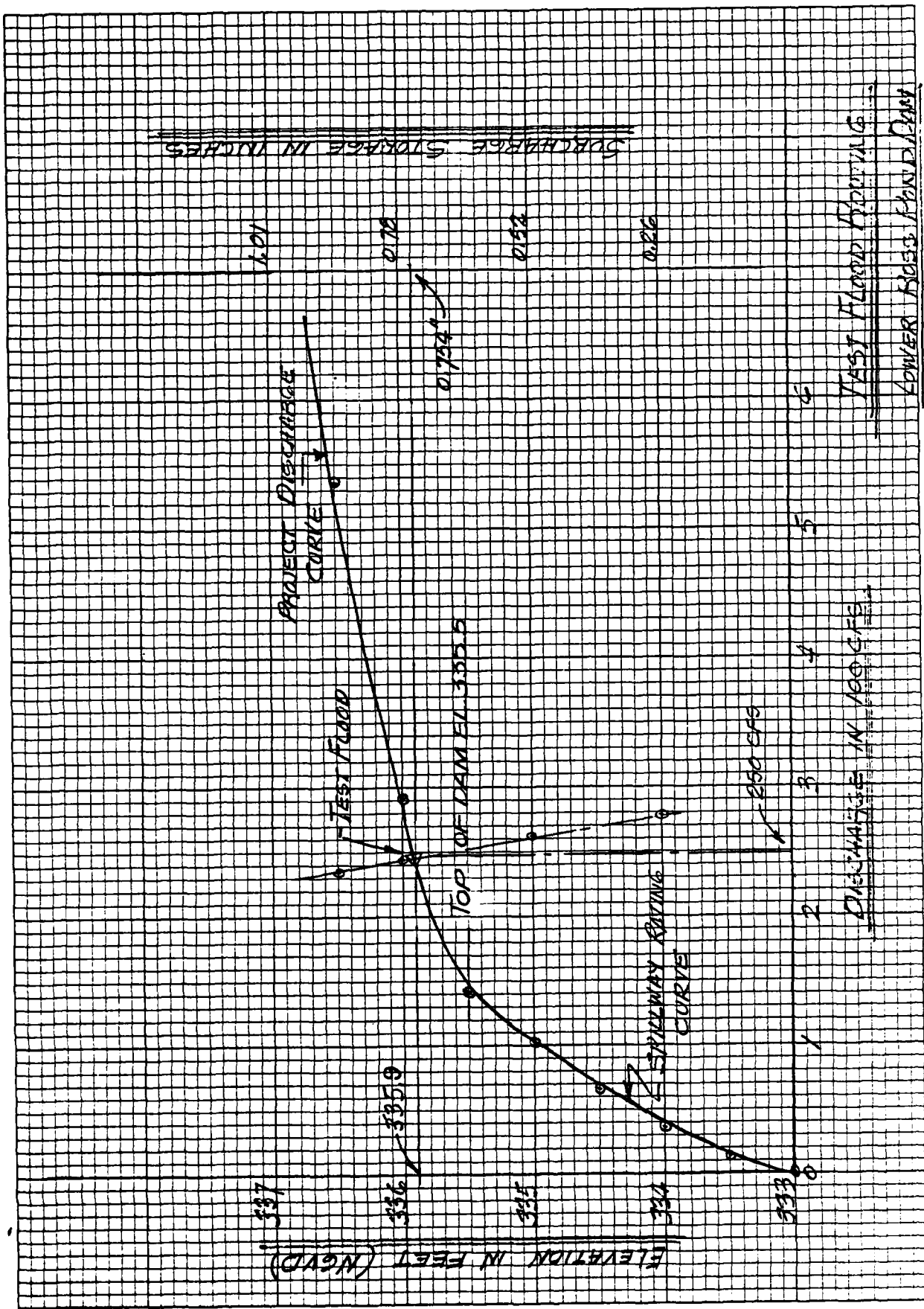
- ii. Surcharge storage in inches =  $S = 12 (h_1 + h_2) \frac{S.A.}{D.A.} = 0.26 h$   
 where S.A. = surface area = 0.0158 sq. mi.  
 D.A. = drainage area = 0.74 sq. mi.

- iii.  $Q_{outflow} = Q_{inflow} (1 - \frac{S}{R_e})$ ; where  $Q_{inflow} = 295 \text{ CFS}$ ;  $R_e = 4.6''$   
 overflow portion)

- iv. Length of dam = 100 feet; Top of Dam elev. = 335.50; c for dam = 3.0  
 Length of spillway = 12.0 feet; Spillway crest = 333.0; c for spillway = 3.0

- v.  $Q_{inflow} = 295 \text{ C.F.S.}$

Q in CFS	Elevation	Total Head over crest $h_1 + h_2 = h$	Storage in inches = S	Remarks
278	334.0	1.0	0.26	
270	334.5	1.5	0.39	
262	335.0	2.0	0.52	
253	335.5	2.5	0.65	
245	336.0	3.0	0.78	
237	336.5	3.5	0.91	
250	335.9	2.9	0.754 "	



"Rule of Thumb Guidance for Estimating  
Downstream Dam Failure Discharge"

BASIC DATA

Name of dam Lower Ross Pond Dam Name of town Killingly, Ct.  
 Drainage area = 0.74 sq. mi., Top of dam 335.5 feet NGVD  
 Spillway type = Broad-crested-overflow weir Crest of spillway 333.0 NGVD  
 Surface area at crest elevation = 10.10 Acres = 0.0158 sq. miles  
 Reservoir bottom near dam = 328.5 feet NGVD  
 Assumed side slopes of embankments 2:1  
 Depth of reservoir at dam site =        =  $y_o$  = 7.0 ft.  
 Mid-height elevation of dam = 332.0 NGVD  
 Length of dam at crest = 105 feet  
 Length of dam at mid-height = 100 feet  
40 of dam length at mid-height =  $W_b$  = 40 feet

Elevation (NGVD)	Estimated Storage in AC-FT	
326.0	0	
333.0	40	Spillway Crest Elevation
334.0	50	
335.0	60	
335.5	70	Top of Dam Elevation
335.9	75	Test Flood Elevation

$$\begin{aligned} \text{Failure Discharge} &= \frac{8}{27} W_B \sqrt{g} y_o^{1.5} \\ &= 1.68 W_B y_o^{1.5} = 1244 \end{aligned}$$

Maximum Spillway Discharge = 142 C.F.S.  
 Total Failure Discharge = 1386 C.F.S.

NOTE: Dam failure analysis is not carried out due to two reasons  
 a.) depth of flow is hardly 5.0 feet b.) 30 AC-FT of storage  
 volume is very small



STATE	IDENTITY NUMBER
1 2	3 4 5 6 7
C T O	0 1 7

11

1142

【19】

**[17]**

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14  
15  
16

REMARKS

ENG FORM 4474  
1 DEC 77

11

PART II - INVENTORY OF DAMS IN THE UNITED STATES (PURSUANT TO PUBLIC LAW 92-367)										IDENTITY NUMBER	
										STATE	
										1	2
										3	4
										5	6
										7	8
										CT00175	

See reverse side for instructions.

[29] [30] [31] [32] [33] [34] [35] [36] [37] [38] [39] [40] [41] [42] [43] [44] [45]

STATISTICS	SPILLWAY			VOLUME OF DAM (CY)		POWER CAPACITY		NAVIGATION LOCKS						BLANK
	CREST LENGTH (ft)	WIDTH (ft)	MAXIMUM DISCHARGE (cfs)	INSTALLED (MW)	PROPOSED (MW)	LENGTH (ft)	WIDTH (ft)	LENGTH (ft)	WIDTH (ft)	LENGTH (ft)	WIDTH (ft)			
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80	3	600	12											
													5	

[46]

[47]

[48]

MISC DATA	OWNER		ENGINEERING BY		CONSTRUCTION BY	
	STATE OF CONNECTICUT		UNKNOWN		UNKNOWN	
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80						
					6	

[49]

[50]

[51]

[52]

MISC. DATA (Continued)	DESIGN		CONSTRUCTION		OPERATION		MAINTENANCE	
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							7	

[53]

[54]

[55]

MISC. DATA (Continued)	INSPECTION BY		INSPECTION DATE		AUTHORITY FOR INSPECTION	
	C E MAGUIRE INC		1 APR 80		PL-92-367	
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80						
					8	

[56]

REMARKS	REMARKS	
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80		
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# PART III - INVENTORY OF DAMS IN THE UNITED STATES SUPPLEMENTARY DATA

STATE	IDENTITY NUMBER					
	1	2	3	4	5	6
CT000175						

(A-3)

(A-4)

(A-3)

(A-2)

(A-1)

LOCATION	TOWN	N.E.D. PERMIT NO.	STATE NUMBER	FERC NO.	USGS SHEET
KILLINGLY					
EAST KILLINGLY I-16					

(B-12)

(B-11)

(B-10)

(B-9)

(B-8)

(B-7)

(B-6)

(B-5)

(B-4)

(B-3)

(B-2)

(B-1)

DRAINAGE CHARACTERISTICS	DRAINAGE AREA SQ. MI.	FLOW DATA		CREST ELEV. M.S.L.	ABUT. ELEV. M.S.L.	USABLE STORAGE ACRES FEET	RESERVOIR AREA ACRES	FLASH BOARD HT. FEET	OUTLET CONDUITS NO.	INVERT ELEV. M.S.L.
		MIN. C.F.S.	MAX. C.F.S.							
0.74										

(C-7)

(C-6)

(C-5)

(C-4)

(C-3)

(C-2)

(C-1)

POWER DATA	GENERATION UNITS				AVERAGE ANNUAL GENERATION K.W.H.	LAST GEN. YEAR	RETIRED YEAR	FORMER USE	CAPACITY FACTOR
	INSTALLED NO.	CAP. KW	PLANNED NO.	CAP. KW					
0.74									

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NED FORM 1. JAN 79 80 (TEST)

END

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